Amendments to the Claims:
This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims

Claims 1-20 (canceled)

Claim 21 (new). A method for detecting multiuser behavior on an aerial interface in GPRS and EGPRS mobile radio systems, comprising the steps of

acquiring and evaluating during a transmission of subscriber data on an aerial interface, additional information contained in subscriber data by a device on a network side and/or a subscriber side, both in the uplink and the downlink.

Claim 22 (new). The method according to claim 21, further comprising the steps of

comparing at the beginning of a Temporary Bit Flow (TBF) the number of the used Radio Link Control (RLC) blocks with an actually available and hence usable number of RLC blocks, and

identifying a number of parallel subscribers in used timeslots based on the additional information contained in the RLC blocks.

Claim 23 (new). The method according to claim 21, further comprising the step of evaluating parameters Uplink Status Flag (USF) and/or Temporary Flow Identifier (TFI) as additional information.

Claim 24 (new). The method according to claim 23, further comprising the step of determining for the duration of an uplink TBF, how many USF's are allocated by the network side.

Claim 25 (new). The method according to claim 23, further comprising the step of determining for the duration of a downlink TBF, how many USF's are allocated by the network side.

Claim 26 (new). The method according to claim 23, further comprising the step of identifying the USF's and/or TFI's and for each TBF and a combination of all TBF's which are part of the transfer.

Claim 27 (new). The method according to claim 22, further comprising the step of determining, in a static allocation process, the usage of the timeslots for the RLC blocks by counting the data frames.

Claim 28 (new). The method according to claim 21, further comprising the step of evaluating for the entire lifetime of the respective uplink TBF and/or downlink TBF, the RLC data as well as the RLC/MAC control blocks for all TBF's in existence at that time and in all timeslots allocated to the respective TBF, and determining based on these data if a multiuser operation has occurred at the time of the data transmission.

Claim 29 (new). A device for detecting multiuser behavior on the aerial interface in GPRS and EGPRS mobile radio systems, wherein during a transmission of subscriber data on the aerial interface, additional information contained in the subscriber data are acquired and evaluated by at least one device on the network side and/or the subscriber side, both in the uplink and the downlink
and wherein the at least one device for acquiring additional information is provided on the network side and/or on the subscriber side in the mobile radio network, which information is included in the subscriber data transmitted on the aerial interface in the downlink and uplink.

Claim 30 (new). The device according to claim 29, wherein the at least one device is provided in the Packet Control Unit PCU (8).

Claim 31 (new). The device according to claim 29, wherein the at least one device comprises a subscriber-side measurement system, which cooperates with or is integrated in a mobile radio terminal.

Claim 32 (new). The device according to claim 29, wherein the additional information comprises the parameters USF and/or TFI.